UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/007,869	11/08/2001	Stewart Paton Granger	J6666(C)	6511

201 7590 11/30/2004

UNILEVER
PATENT DEPARTMENT
45 RIVER ROAD
EDGEWATER, NJ 07020

EXAMINER	
JIANG, SHAOJIA A	

ART UNIT	PAPER NUMBER
1617	

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/007,869	GRANGER ET AL.	
	Examiner	Art Unit	
	Shaojia A. Jiang	1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 July 2004 and 16 September 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-7,9-12 and 14-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-2, 4-7, 9-12, and 14-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is a response to Applicant's amendment and response filed on July 30, 2004 and September 16, 2004 wherein claims 1-2, 4-7, 9-12, and 14-18 have been amended; claims 3, 8 and 13 are cancelled.

Currently, claims 1-2, 4-7, 9-12, and 14-18 are pending in this application.

Claims 1-2, 4-7, 9-12, and 14-18 are examined on the merits herein.

Applicant's declaration of Susanne Teklists lobst (not inventor) submitted July 30, 2004 under 37 CFR 1.132, are acknowledged and will be further discussed below.

The following is new rejection(s) necessitated by Applicant's amendment filed on September 16, 2004.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-2, 4-7, 9-12, and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burger et al. (5,759,556, of record) and Granger et al. (5,716,627, of record) in view of Liu et al. (5,976,555, of record) and Surares et al. (5,941,116, of record), further in view of Remington's Pharmaceutical Sciences (1990, of record).

Burger et al. discloses a skin conditioning composition comprising a compound selected from retinol or retinyl ester in an amount from about 0.001% to about 10%, preferably in an amount from about 0.01% to about 0.5%, in combination with particular compounds such as instant retinoid booster: alpha Ionones and Damascones (see particularly their structural formula at col.3-4 and col.2 line 41 to col.3 line 50, Example 6 at col.14) in an amount from about 0.0001% to about 50%; and a method of a skin condition selecting from the group consisting of dry skin, photodamaged skin, appearance of wrinkles, age spots and aged skin comprising applying topically to the skin the composition therein. See also abstract, col. 5 lines 23-28, and claims 1-4. Burger et al. also discloses the composition therein further comprising the instant emollients ranging from about 0.5-50% (see col.6 lines 23-56). Burger et al. further discloses that the skin care composition therein is stored in a suitable container to form a skin care product (see col.7 lines 20-42).

Granger et al. discloses skin conditioning compositions comprising a) retinol or retinyl ester in an amount from about 0.001% to about 10%, preferably in an amount from about 0.01% to about 1% (see particularly abstract, col.2 lines 31-40 and col.3 lines 34-39), b) an azole, most preferably climbazole (see particularly col.2 line 62, col.4 lines 19-27, col.12 Example 3 and col.14 Example 4) in an amount from about 0.001% to about 50%, preferably in an amount from about 0.001% to about 10%, and c) a fatty acid amide such as linoleoyl-DEA (also known as linoleamide DEA) in an amount from about 0.001% to about 50% (see particularly col.2 lines 36-38, col.12 Example 3 and col.14 Example 4), wherein at least two agents, an azole and the fatty acid amide,

substantially improves the performance of retinol or a retinyl ester (see col.2 lines 47-50) and substantially increase the ability of either retinol or retinyl ester in skin benefit, resulting in a synergistic interaction between retinol or retinyl ester and fatty acid amides and azoles in treating skin conditions such as dry skin, photodamaged skin, appearance of wrinkles, age spots and aged skin (see col.2 lines 41-58); and a method of conditioning skin comprising applying topically to the skin the composition therein. See also claims 1-2 therein. Granger et al. further discloses that the skin care composition therein is stored in a suitable container to form a skin care product (see col.6 lines 24-25 and 33-35).

Burger et al. and Granger et al. do not expressly disclose the first compartment for storing retinol or retinyl ester kept out of contact with oxygen, and the second compartment for storing alpha Ionone, and the first and second compartments being joined together; and avoiding chemical degradation of retinol or retinyl ester in the first composition that would be caused by contact with alpha Ionone in the second composition. Granger et al. does not expressly disclose the employment of the particular fatty acid amide, Cocamide DEA, in the composition of prior art.

Liu et al. teaches that retinoids including of retinol, retinyl ester and retinal in skin care compositions are unstable, i.e., quickly losing their activity and either oxidize or isomerize to non-efficacious chemical forms. See col.2 lines 40-53. As a result, several stable compositions for skin care are supplied in two bottles or two portions (separating retinoids from other ingredients) and are mixed together just prior to use (see particularly col. 2 lines 54-61).

Surares et al. discloses that the first and second compositions are stored in respective separate containers, being joined together (see abstract and Fig.1-2). One of separate compositions may comprise retinol, retinol esters, or retinoic acid (see col.3 Table I, col.4 lines 59-64, and col.8 Table III).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ two compartments for separately storing retinol or retinyl ester in a first composition and dimethyl imidazolidinone in the second composition, and also to keep retinol or retinyl ester out of contact with oxygen.

One having ordinary skill in the art at the time the invention was made would have been motivated to employ two compartments for separately storing retinol or retinyl ester in a first composition and dimethyl imidazolidinone in the second composition, and also to keep retinol or retinyl ester out of contact with oxygen since retinoids including of retinol, retinyl ester and retinal in skin care compositions are known to be unstable because they quickly lose their activity by, for example, either being oxidized or isomerizing to non-efficacious chemical forms according to Liu et al. Moreover, several known stable compositions for skin care are known to be supplied in two bottles or two portions (separating retinoids from other ingredients) to keep retinoids from chemical reactions with other ingredients (the first and second compositions are known to be stored in respectively separate compartments or containers, being joined together) and are mixed together just prior to use and, based the teachings of Liu and Surares. Therefore, one of ordinary skill in the art would have found it obvious to employ two compartments for separately storing retinol or retinyl ester in a first composition and

alpha Ionone in the second composition to keep retinol or retinyl ester from reacting with alpha Ionone in order to preserve the stability of retinol or retinyl ester in the compositions, and also to keep retinol or retinyl ester out of contact with oxygen to avoid being oxidized by oxygen in the air in the air or some other locations. Thus, the teachings of Liu and Surares et al. have clearly provided the motivation to employ the separate compartments herein.

Additionally, one having ordinary skill in the art at the time the invention was made would have been motivated to employ the particular fatty acid amide, Cocamide DEA, in the skin compositions of Granger et al. since fatty acid amides are broadly known to be capable of substantially improving the performance of retinol or a retinyl ester in the skin care compositions and resulting in a synergistic interaction between retinol or retinyl ester and fatty acid amides and azoles in treating skin conditions such as dry skin, photodamaged skin, appearance of wrinkles, age spots and aged skin according to Granger et al. Cocamide DEA is a known and art-recognized fatty acid amide used in the skin composition, which is a coco fatty acid diethanolamide (having registry number 68603-42-9 of ACS, PTO-892). Thus, Cocamide DEA would have same or substantially similar usefulness or activity as linoleoyl-DEA (also known as linoleamide DEA) in skin care compositions, based on the reasonable expectation that structurally similar species usually have similar properties. See, e.g., Dillon, 919 F.2d at 693, 696, 16 USPQ2d at 1901, 1904. See also Deuel, 51 F.3d at 1558, 34 USPQ2d at 1214.

Additionally, above three cited references do not expressly disclose the first compartment made out of aluminum.

Remington's Pharmaceutical Sciences (1990) teaches that aluminum containers are widely used in pharmaceutical products for preserving the stability of many pharmaceuticals (see the bottom of the right column at page 1511 to the 1st paragraph of the left column at page 1512).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to employ an aluminum container as the first compartment for storing retinol or retinyl ester.

One having ordinary skill in the art at the time the invention was made would have been motivated to employ an aluminum container as the first compartment for storing retinol or retinyl ester since Remington's Pharmaceutical Sciences (1990) teaches that aluminum containers are known to be widely used in pharmaceutical products for preserving the stability of many pharmaceuticals because one of ordinary skill in the art would clearly acknowledge that an aluminum container is stable, i.e., not reacting with many pharmaceuticals including retinol or retinyl ester in a normal storing condition and therefore is widely used as pharmaceutical containers (and/or food containers). Moreover, selecting a material for a container to store a pharmaceutical product from all known materials is considered well in the competence level of an ordinary skilled artisan in pharmaceutical science and/or cosmetic science, involving merely routine skill in the art.

Response to Argument

Applicant's arguments and declaration of Susanne Teklists lobst submitted July 30, 2004 under 37 CFR 1.132 with respect to the prior art rejections made under 35 U.S.C. 103(a) as being unpatentable over the cited prior art above have been fully considered but are not deemed persuasive as to the nonobviousness of the claimed invention over the prior art as discussed further below.

Applicant argues that the instant claims are not obvious and the combination cited references does not arrive the claimed invention herein. Applicant also asserts that the specification and the declaration of Susanne Teklists lobst under 37 CFR 1.132 have provide the unexpected results. Applicant's arguments are not found convincing.

One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. In re Keller, 642 F.2d 413, 208 SPQ 871 (CCPA 1981); In re Merck & Co., Inc., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). See MPEP 2145. In this case, retinoids including of retinol, retinyl ester and retinal in skin care compositions are known to be unstable because they quickly lose their activity by, for example, either being oxidized or isomerizing to non-efficacious chemical forms according to Liu et al. Moreover, several known stable compositions for skin care are known to be supplied in two bottles or two portions (separating retinoids from other ingredients) to keep retinoids from chemical reactions with other ingredients (the first and second compositions are known to be stored in respectively separate compartments or containers, being joined together) and are mixed together just prior to use and, based on the teachings of Liu and Surares.

Therefore, one of ordinary skill in the art would have found it obvious to employ two compartments for separately storing retinol or retinyl ester in a first composition and alpha Ionone in the second composition to keep retinol or retinyl ester from reacting with alpha Ionone in order to preserve the stability of retinol or retinyl ester in the compositions, and also to keep retinol or retinyl ester out of contact with oxygen to avoid being oxidized by oxygen in the air in the air or some other locations. Thus, the teachings of Liu and Surares et al. have clearly provided the motivation to employ the separate compartments herein.

Remington's Pharmaceutical Sciences (1990) teaches that aluminum containers are known to be widely used in pharmaceutical products for preserving the stability of many pharmaceuticals because one of ordinary skill in the art would clearly acknowledge that an aluminum container is stable, i.e., not reacting with many pharmaceuticals including retinol or retinyl ester in a normal storing condition and therefore is widely used as pharmaceutical containers (and/or food containers). Moreover, selecting a material for a container to store a pharmaceutical product from all known materials is considered well in the competence level of an ordinary skilled artisan in pharmaceutical science and/or cosmetic science, involving merely routine skill in the art.

It must be recognized that any judgment on obviousness takes into account the knowledge which was within the level of ordinary skill at the time the claimed invention was made, and the knowledge generally available to one ordinary skill in the art.

Again, Applicant's testing data in the specification at pages 37-40 and in the declaration of Susanne Teklists Iobst submitted July 30, 2004 under 37 CFR 1.132 have been fully considered with respect to the nonobviousness and/or unexpected results of the claimed invention over the prior art and but are not deemed persuasive. The results on the tests of the employment of the agents improving the performance of retinol or a retinyl ester and substantially increasing the ability of either retinol or retinyl ester in skin benefit, shown in Example 1 in the specification applied to a person have been taught and suggested by Burger et al. (5,759,556) and Granger et al. (5,716,627).

Moreover, Applicant testing results in the declaration of Susanne Teklists Iobst under 37 CFR 1.132, that retinol stability is significantly diminished in the presence of boosters is known and not unexpected based on the teachings of Liu and Surares.

Therefore, all results presented herein are clearly expected and not unexpected based on the cited prior art. Expected beneficial results are evidence of obviousness. See MPEP § 716.02(c). Therefore, the evidence presented in Examples herein is not seen to support the nonobviousness of the instant claimed invention over the prior art.

Therefore, motivation to combine the teachings of the prior art cited herein to make the present invention is seen. The claimed invention is clearly obvious in view of the prior art.

For the above stated reasons, said claims are properly rejected under 35 U.S.C. 103(a). Therefore, said rejections are adhered to.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-2, 4-7, 9-12, and 14-18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-4 of U.S. Patent No. 5,759,556 (Burger et al.) in view of Liu et al. (5,976,555, of record) and Surares et al. (5,941,116, of record) and Remington's Pharmaceutical Sciences (1990, of record).

Although the conflicting claims are not identical, they are not patentably distinct from each other because the patent is drawn to a skin conditioning composition comprising a compound selected from retinol or retinyl ester in an amount from about 0.001% to about 10%, in combination with particular cyclic aliphatic unsaturated compound such as alpha Ionone in an amount from about 0.001% to about 10%; and methods of conditioning skin comprising applying topically to the skin the composition therein.

The claims of the instant application is drawn to stable skin care products containing a first composition comprising about 0.001% to about 10% of a retinoid

selected from the group consisting of retinyl esters, retinol, retinal and mixtures thereof'; a second composition comprising about 0.0001% to about 50% of at least one retinoid booster selected from the group consisting of the particular retinoid boosters such as alpha Ionone; a first compartment for storing the first composition; and a second compartment for storing the second composition; the first and second compartments being joined together, and methods of conditioning skin employing the compositions herein.

The patent does not expressly disclose the first compartment made of aluminum for storing retinol or retinyl ester kept out of contact with oxygen, and the second compartment for storing alpha Ionone, and the first and second compartments being joined together; and avoiding chemical degradation of retinol or retinyl ester in the first composition that would be caused by contact with dimethyl imidazolidinone in the second composition.

The same teachings of Liu et al. and Surares et al. and Remington's Pharmaceutical Sciences (1990) have been discussed above (see supra at page 7 of the instant Office Action).

One having ordinary skill in the art at the time the invention was made would have been motivated to employ two compartments for separately storing retinol or retinyl ester in a first composition and alpha Ionone in the second composition, and also to keep retinol or retinyl ester out of contact with oxygen since retinoids including of retinol, retinyl ester and retinal in skin care compositions are known to be unstable because they quickly lose their activity by either being oxidized or isomerizing to non-

efficacious chemical forms according to Liu et al. Moreover, several known stable compositions for skin care are supplied in two bottles or two portions (separating retinoids from other ingredients) and are mixed together just prior to use based the teachings of Liu and Surares. Therefore, one of ordinary skill in the art would have found it obvious to employ two compartments for separately storing retinol or retinyl ester in a first composition and alpha Ionone in the second composition to keep retinoids from reacting with dimethyl imidazolidinone in order preserve the stability of retinoid compositions, and also to keep retinol or retinyl ester out of contact with oxygen to avoid being oxidized by oxygen. Thus, the teachings of Liu and Surares et al. have clearly provided the motivation to employ the separate compartments herein.

Additionally, one having ordinary skill in the art would have found it obvious to employ an aluminum container as the first compartment for storing retinol or retinyl ester since Remington's Pharmaceutical Sciences (1990) teaches that aluminum containers are known to be widely used in pharmaceutical products for preserving the stability of many pharmaceuticals. Moreover, selecting a material for a container to store a pharmaceutical product from all known materials is considered well in the competence level of an ordinary skilled artisan in pharmaceutical science and/or cosmetic science, involving merely routine skill in the art.

Thus, the instant claims 1-2, 4-7, 9-12, and 14-18 are seen to be obvious over the claims 1-4 of U.S. Patent No. 5,759,556 in view of Liu et al. (5,976,555, of record) and Surares et al. (5,941,116, of record) and Remington's Pharmaceutical Sciences (1990, of record).

Claims 1-2, 4-7, 9-12, and 14-18 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-5 of copending Application No. 10/008,067 in view of Liu et al. (5,976,555, of record) and Surares et al. (5,941,116, of record) and Remington's Pharmaceutical Sciences (1990, of record).

Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending application is drawn to a stable skin care composition containing a first composition comprising about 0.001% to about 10% of a retinoid; and about 0.0001% to about 50% of at least one retinoid booster; and a cosmetically acceptable vehicle, wherein the stable skin care composition is contained in a package so that the composition is out of contact with oxygen and the package made out of aluminum, and methods of conditioning skin employing the composition.

The claim of the instant application is drawn to stable skin care products containing a first composition comprising about 0.001% to about 10% of a retinoid selected from the group consisting of retinyl esters, retinol, retinal and mixtures thereof'; a second composition comprising about 0.0001% to about 50% of at least one retinoid booster selected from the group consisting of the particular retinoid boosters herein; a first compartment for storing the first composition; and a second compartment for storing the second composition; the first and second compartments being joined together, and methods of conditioning skin employing the compositions herein. Thus,

the instant compositions comprise about 0.001% to about 10% of a particular retinoid and about 0.0001% to about 50% of particular retinoid boosters herein.

The copending Application No. 10/00,067 does not expressly disclose the first compartment made of aluminum for storing retinol or retinyl ester, and the second compartment for storing at least one retinoid booster, and the first and second compartments being joined together; and avoiding chemical degradation of retinol or retinyl ester in the first composition that would be caused by contact with retinoid booster in the second composition.

As discussed in the above obviousness-type double-patenting rejection (see above for example at page 14-15 of the instant Office Action), as the same reason as above, the teachings of Liu and Surares et al. have clearly provided the motivation to employ the separate compartments herein.

Thus, the instant claims 1-2, 4-7, 9-12, and 14-18 are seen to be obvious over the claims 1-5 of copending Application No. 10/00,067 in view of Liu et al. (5,976,555, of record) and Surares et al. (5,941,116, of record).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicant's remarks filed March 23, 2004 regarding obviousness-type double patenting (see page 16 of Applicant's response) that "Nevertheless, in the interest of progressing the present application to issue without delay, to the extent any double patenting rejections may remain, Applicants would be willing to supply a terminal disclaimer upon indication of allowability of the present claims.", have been considered.

In view of the rejections to the pending claims set forth above, no claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Jiang, whose telephone number is (571)272-0627. The examiner can normally be reached on Monday-Friday from 9:00 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan, Ph.D., can be reached on (571)272-0629. The

fax phone number for the organization where this application or proceeding is assigned is 703.872.9307.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Anna Jiang, Ph.D.
Primary Examiner, AU 1617
November 18, 2004